

With respect to the current state of VOIP 911 service and in regards to the efforts towards ubiquitous E-911 service for VOIP, I would like to point out the following facts of my VOIP experience to date...

Executive Summary: In the effort to make 911 service ubiquitous for stationary VOIP users, the FCC has placed an inappropriate burden on nomadic and international nomadic VOIP users which should be resolved. Not all interconnected VOIP is at risk for being mistaken for a telephone, and, in many cases, 911 service is neither useful, nor desirable. Such users should be allowed to opt out at the subscriber's discretion.

1. I have been a VOIP user for almost 5 years now.
2. I have never had an issue with the fact that my interconnected VOIP service does not connect to 911. I don't expect it to, and, it is impractical for it to do so.
3. I do have an issue with the inability for a nomadic user such as myself being told I cannot opt out of 911 service on my interconnected VOIP account.
4. The reason I have this issue is that 911 service makes utterly no sense to my VOIP usage pattern. I rarely use my VOIP service from within the United States. I purchased the service primarily for the ability to make inexpensive calls back to the United States while I am travelling abroad. It has served me well in this context.
5. I don't have anything remotely resembling a telephone associated with my service. I use a software SIP client on a laptop computer and either the built-in speakers/microphone or a headset. There is simply no way anyone would ever develop the expectation that my computer could be used to dial 911.
6. SIP is not a secure protocol. The authentication information passed along in a SIP proxy registration

is done in essentially clear text and is very open to replay attacks. When this meant someone could make phone calls on my account at a cost of $\leq \$0.10/\text{minute}$, I was not particularly worried about this fact. The risk is moderate, but, the cost of a violation is relatively low. On the other hand, having been informed by my service provider that if someone spoofs my account, each call they make to 911 will be billed at the price of \$100 per call, i am much more concerned about the potential for theft of service in this case. Instead of a maximum exposure of $\$0.10/\text{minute}$, I'm looking at a potential per-minute exposure of \$1,000s.

7. While Interconnected Voice over Packet Telephony services do provide some functions which are remarkably similar to POTS, assuming that they fit the same regulatory model is fundamentally broken. This imposes unnecessary artificial limitations on the technology (no, AT&T's nomad detection is not a complete solution, BTW) and is fundamentally not technically feasible. IP addresses are portable from a variety of perspectives. For example, I can open up a VPN connection to my house and have my VOIP phone appear to be within the address range at my house from anywhere in the world. There's no way for any aspect of my ISP, VOIP provider, etc. to know the call originated elsewhere. Creating the false impression that this is detectable is a serious mistake and bad public policy.

I understand that Ma and Pa Kettle who are subscribing to Vonage with an appliance adapter in their kitchen and can't spell IP let alone understand what 192.9.200.13 means need that thing that looks like a telephone and acts like a telephone to call 911 when Pa has his next heart attack. I agree that interconnected VOIP providers should not be allowed to opt out of this for fixed-location services. However, consumers should have the choice of signing up for domestic fixed, international fixed, domestic nomadic, or international nomadic service regardless of their billing address.

Here is how I would characterize those four service profiles:

Domestic Fixed:

VOIP service is provided to a single fixed location and the VOIP adapter or appliance is not nomadic. This user should have a registered address and full 911 service.

International Fixed:

Same as domestic fixed, except fixed location where service is provided is outside of the united states. This user should not be subjected in any way to the 911 problems.

Domestic Nomadic:

VOIP service is provided to an unknown location which may change often. This user should sign a contract acknowledging that 911 will not know where they are calling from. The PSAP should be provided the ANI number and a registered data set specifying "NOMADIC USER". Further, this user should be expected to place appropriate warning labels on any device used with this service which could be mistaken for a telephone.

International Nomadic:

Same as Domestic Nomadic, except this user primarily uses the service from outside of the united States and therefore has no real need for 911 service. This user should be exempt from 911 service requirements and 911 calls should be routed to a national center for redirection to an appropriate PSAP based on data collected from the caller at the time.

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